

[Arc Welding Quality Evaluation Apparatus]

Abstract of Disclosure

An arc welding quality evaluation apparatus for consumable electrode gas shielded arc welding comprises a heat input detection means 8 for detecting heat input applied to a workpiece to be welded; a welding time detection means 11 for detecting the welding time of the workpiece; a spatter weight detection means 16 for detecting the weight of spatter produced during the welding time of the workpiece; a heat compensation means 17 for compensating for heat loss due to spatter occurring during the welding time of the workpiece; an effective heat input computation means 12 for computing effective heat input per unit welding time, based on detected values of the detection means 8 and 11, and a compensation value of the heat compensation means 17; and a weld quality assessment means 22 for comparing an output of the effective heat input computation means 12 to a reference standard value, and assessing weld quality acceptability based on the degree of separation of the computation means output from the reference standard value.

Figures